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TECH CENTER 1600/2900

(1) GENERAL INFORMATION:

(i) APPLICANT:

Henrik Stender

Kaare Lund

Tina Anderson Hollerup

(ii) TITLE OF INVENTION: Novel Process For The Detection of Mycobacteria

(iii) NUMBER OF SEQUENCES: 123

(iv) CORRESPONDENCE ADDRESS:

(A) ADDRESSEE:

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(C) CITY:

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District of Columbia

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(F) ZIP:

20004

(v) COMPUTER READABLE FORM:

- (A) MEDIUM TYPE: Floppy disk 3.5 inch
- (B) COMPUTER: IBM PC compatible
- (C) OPERATING SYSTEM: ASCII
- (D) SOFTWARE: Microsoft Word

(vi)CURRENT APPLICATION DATA:

- (A) APPLICATION NUMBER: 08/943,777
- (B) FILING DATE: October 3, 1997

(vii) PRIOR APPLICATION DATA:

- (A) APPLICATION NUMBER: 60/028,392
- (B) FILING DATE: 10/15/96
- (A) APPLICATION NUMBER: 60/029,595
- (B) FILING DATE: 10/23/96
- (A) APPLICATION NUMBER: 05/05/97
- (B) FILING DATE: 05/08/97

(viii)ATTORNEY/AGENT:

- (A) NAME: William E. Player
- (B) REGISTRATION NUMBER: 31,409

(ix) TELECOMMUNICATION INFORMATION:

- (A) TELEPHONE: (202) 638-6666
- (B) TELEFAX: (202) 393-5350

(2) INFORMATION FOR SEQ ID NO: 1:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 15 basepairs
- (B) TYPE: nucleic acid basepairs
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 1:

AGATCGGGGT AGCAC 15

(2) INFORMATION FOR SEQ ID NO: 2:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 15 basepairs
- (B) TYPE: nucleic acid basepairs
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) SEQUENCE DESCRIPTION: SEQ ID NO: 2:

TGTTTTCTCC TCCTA 15

(2) INFORMATION FOR SEQ ID NO: 3:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 15 basepairs
- (B) TYPE: nucleic acid basepairs
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) SEQUENCE DESCRIPTION: SEQ ID NO: 3:

ACTGCCTCTC AGCCG 15

(2) INFORMATION FOR SEQ ID NO: 4:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 15 basepairs
- (B) TYPE: nucleic acid basepairs
- (C) STRANDEDNESS: single

- (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 4:

TGATACTAGG CAGGT 15

- (2) INFORMATION FOR SEQ ID NO: 5:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 5:

CGGATTCACA GCGGA 15

- (2) INFORMATION FOR SEQ ID NO: 6:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 6:

TCACCACCCT CCTCC 15

- (2) INFORMATION FOR SEQ ID NO: 7:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 7:

TTAACCTTGC GACAT 15

- (2) INFORMATION FOR SEQ ID NO: 8:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs

(B) TYPE: nucleic acid basepairs(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) SEQUENCE DESCRIPTION: SEQ ID NO: 8:

ACTATTCACA CGCGC 15

(2) INFORMATION FOR SEQ ID NO: 9:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 9:

CTCCGCGGTG AACCA 15

(2) INFORMATION FOR SEQ ID NO: 10:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 10

GCTTTACACC ACGGC 15

(2) INFORMATION FOR SEQ ID NO: 11:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 11:

ACGCTTGGGG GCCTT 15

(2) INFORMATION FOR SEQ ID NO: 12:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 12:

CCACACCCAC CACAA 15

(2) INFORMATION FOR SEQ ID NO:13:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 13:

CCGGTGGCTT CGCTG 15

- (2) INFORMATION FOR SEQ ID NO: 14:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 14:

ACTTGCCTTG TCGCT 15

- (2) INFORMATION FOR SEQ ID NO: 15:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs

- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 15:

GATTCGTCAC GGGC 15

- (2) INFORMATION FOR SEQ ID NO: 16:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 16:

AACTCCACAC CCCCG 15

- (2) INFORMATION FOR SEQ ID NO: 17:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 17:

ACTCCACACC CCCGA 15

- (2) INFORMATION FOR SEQ ID NO: 18:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 18:

ACCCCTTCGC TTGAC 15

(2) INFORMATION FOR SEQ ID NO: 19:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 19:

CTTGCCCCAG TGTTA 15

- (2) INFORMATION FOR SEQ ID NO: 20:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 20:

CTCTCCCTAC CGGCT 15

- (2) INFORMATION FOR SEQ ID NO: 21:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 21:

GATATTCCGG TCCCC 15

- (2) INFORMATION FOR SEQ ID NO: 22:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single

- (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 22:

ACTCCGCCCC AACTG 15

- (2) INFORMATION FOR SEQ ID NO: 23:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 23:

CTGTCCCTAA ACCCG 15

- (2) INFORMATION FOR SEQ ID NO: 24:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 24:

TTCGAGGTTA GATGC 15

- (2) INFORMATION FOR SEQ ID NO: 25:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 25:

GTCCCTAAAC CCGAT 15

(2) INFORMATION FOR SEQ ID NO: 26:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 26:

GGTGCACCAG AGGTT 15

- (2) INFORMATION FOR SEQ ID NO: 27:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 27:
- CTGGCGGGAC AACTG 15
- (2) INFORMATION FOR SEQ ID NO: 28:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 28:

TTATCCTGAC CGAAC 15

- (2) INFORMATION FOR SEQ ID NO: 29:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single

- (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 29:

GACCTATTGA ACCCG 15

- (2) INFORMATION FOR SEQ ID NO: 30:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 30:
- **GAAGAGACCT TTCCG 15**
- (2) INFORMATION FOR SEQ ID NO: 31:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 31:

CACTCGAGTA TCTCC 15

- (2) INFORMATION FOR SEQ ID NO: 32:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 32:

ATCACCCACG TGTTA 15

(2) INFORMATION FOR SEQ ID NO: 33:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 33:

GCATCCCGTG GTCCT 15

(2) INFORMATION FOR SEQ ID NO: 34:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 34:

CACAAGACAT GCATC 15

- (2) INFORMATION FOR SEQ ID NO: 35:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 35:

TAAAGCGCTT TCCAC 15

- (2) INFORMATION FOR SEQ ID NO: 36:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single

- (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 36:

GCTCATCCCA CACCG 15

(2) INFORMATION FOR SEQ ID NO: 37:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 37:

CCGAGAGAAC CCGGA 15

(2) INFORMATION FOR SEQ ID NO: 38:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 38:

AGTCCCCACC ATTAC 15

- (2) INFORMATION FOR SEQ ID NO: 39:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 39:

AACCTCGCGG CATCG 15

(2) INFORMATION FOR SEQ ID NO: 40:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 40:

GGC TTTTAAG GATTC 15

(2) INFORMATION FOR SEQ ID NO: 41:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 41:

GACCCCGATC CGAAC 15

- (2) INFORMATION FOR SEQ ID NO: 42:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 42:

CCGACTTCAC GGGGT 15

- (2) INFORMATION FOR SEQ ID NO: 43:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single

- (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 43:

CGGAGGGGCA GTATC 15

- (2) INFORMATION FOR SEQ ID NO: 44:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 44:

GATCAATGCT CGGT 15

- (2) INFORMATION FOR SEQ ID NO: 45:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 45:

TTCCCCGCGT TACCT 15

- (2) INFORMATION FOR SEQ ID NO: 46:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 46:

TTAGCCTGTT CCGGT 15

(2) INFORMATION FOR SEQ ID NO: 47:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 47:

GCATGCGGTT TAGCC 15

- (2) INFORMATION FOR SEQ ID NO: 48:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 48:

TACCCGGTTG TCCAT 15

- (2) INFORMATION FOR SEQ ID NO: 49:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 49:

GTAGAGCTGA GACAT 15

- (2) INFORMATION FOR SEQ ID NO: 50:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single

- (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 50:

GCCGTCCCAG GCCAC 15

(2) INFORMATION FOR SEQ ID NO: 51:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO:51:

CTCGGGTGTT GATAT 15

- (2) INFORMATION FOR SEQ ID NO: 52:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 52:

ACTATTTCAC TCCCT 15

- (2) INFORMATION FOR SEQ ID NO: 53:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 53:

ACGCCATCAC CCCAC 15

(2) INFORMATION FOR SEQ ID NO: 54:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 15 basepairs
- (B) TYPE: nucleic acid basepairs
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 54:

CGACGTGTCC CTGAC 15

(2) INFORMATION FOR SEQ ID NO: 55:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 15 basepairs
- (B) TYPE: nucleic acid basepairs
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 55:

ACTACACCCC AAAGG 15

(2) INFORMATION FOR SEQ ID NO: 56:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 15 basepairs
- (B) TYPE: nucleic acid basepairs
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 56:

CACGCTTTTA CACCA 15

(2) INFORMATION FOR SEQ ID NO: 57:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 15 basepairs
- (B) TYPE: nucleic acid basepairs
- (C) STRANDEDNESS: single

- (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 57:

GCGACTACAC ATCCT 15

- (2) INFORMATION FOR SEQ ID NO: 58:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 58:

CGGCGCATAA TCACT 15

- (2) INFORMATION FOR SEQ ID NO: 59:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 59:

CCACATCCAC CGTAA 15

- (2) INFORMATION FOR SEQ ID NO: 60:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 60:

CGCTGAATGG GGGAC 15

(2) INFORMATION FOR SEQ ID NO: 61:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 61:

GGAGCTTCGC TGAAT 15

(2) INFORMATION FOR SEQ ID NO: 62:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 62:

CGGTCACCCG GAGCT 15

- (2) INFORMATION FOR SEQ ID NO: 63:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 63:

GGACGCCCAT ACACG 15

- (2) INFORMATION FOR SEQ ID NO: 64:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single

- (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 64:

GAAGGGGAAT GGTCG 15

(2) INFORMATION FOR SEQ ID NO: 65:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 65:

AATCGCCACG CCCCC 15

- (2) INFORMATION FOR SEQ ID NO: 66:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 66:

CAGCGAAGGT CCCAC 15

- (2) INFORMATION FOR SEQ ID NO: 67:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 67:

GTCACCCCAT TGCTT 15

(2) INFORMATION FOR SEQ ID NO: 68:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 68:

ATCGCTCTCT ACGGG 15

- (2) INFORMATION FOR SEQ ID NO: 69:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 69:

GTGTATGTGC TCGCT 15

- (2) INFORMATION FOR SEQ ID NO: 70:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 70:

ACGGTATTCC GGGCC 15

- (2) INFORMATION FOR SEQ ID NO: 71:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single

- (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 71:

GGCCGAATCC CGCTC 15

- (2) INFORMATION FOR SEQ ID NO: 72:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 72:

AAACAGTCGC TACCC 15

- (2) INFORMATION FOR SEQ ID NO: 73:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 73:

CCTTACGGGT TAACG 15

- (2) INFORMATION FOR SEQ ID NO: 74:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 74:

GAGACAGTTG GGAAG 15

(2) INFORMATION FOR SEQ ID NO: 75:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 75:

TGGCGTCTGT GCTTC 15

- (2) INFORMATION FOR SEQ ID NO: 76:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 76:

CGACTCCACA CAAAC 15

- (2) INFORMATION FOR SEQ ID NO: 77:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 77:

GATAAGGGTT CGACG 15

- (2) INFORMATION FOR SEQ ID NO: 78:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single

- (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 78:

ATCCGTTGAG TGACA 15

- (2) INFORMATION FOR SEQ ID NO: 79
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 79:

CAGCCCGTTA TCCCC 15

- (2) INFORMATION FOR SEQ ID NO: 80:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 80:

AACCTTTGGG ACCTG 15

- (2) INFORMATION FOR SEQ ID NO: 81:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 81:

TAAAAGGGTG AGAAA 15

(2) INFORMATION FOR SEQ ID NO: 82:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 82:

GTCTGGCCTA TCAAT 15

- (2) INFORMATION FOR SEQ ID NO: 83:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 83:

AGATTGCCCA CGTGT 15

- (2) FORMATION FOR SEQ ID NO: :84
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO:84:

AATCCGAGAA AACCC 15

- (2) INFORMATION FOR SEQ ID NO: 85:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single

- (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO:85:

GCATTACCCG CTGGC 15

- (2) INFORMATION FOR SEQ ID NO: 86:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 86:

TTAAAAGGAT TCGCT 15

- (2) INFORMATION FOR SEQ ID NO: 87:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 87:

AGACCCCAAT CCGAA 15

- (2) INFORMATION FOR SEQ ID NO: 88:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 88:

GACTCCGACT TCATG 15

(2) INFORMATION FOR SEQ ID NO: 89:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO:89:

GTCTTTTCGT CCTGC 15

- (2) INFORMATION FOR SEQ ID NO: 90:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 90:

GTCTTATCGT CCTGC 15

- (2) INFORMATION FOR SEQ ID NO: 91:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 91:

GTCTTCTCGT CCTGC 15

- (2) INFORMATION FOR SEQ ID NO: 92:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

(ii) SEQUENCE DESCRIPTION: SEQ ID NO: 92:

GTCTTGTCGT CCTGC 15

(2) INFORMATION FOR SEQ ID NO: 93:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 93:

GTCTATTCGT CCTGC 15

(2) INFORMATION FOR SEQ ID NO: 94:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 94:

GTCTCTTCGT CCTGC 15

(2) INFORMATION FOR SEQ ID NO: 95:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 95:

GTCTGTTCGT CCTGC 15

(2) INFORMATION FOR SEQ ID NO: 96:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 96:

TTGGCCGGTG CTTCT 15

- (2) INFORMATION FOR SEQ ID NO: 97:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 97:

TTGGCCGGTA CTTCT 15

- (2) INFORMATION FOR SEQ ID NO: 98:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 98:

TTGGCCGGTC CTTCT 15

- (2) INFORMATION FOR SEQ ID NO: 99:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

(ii) SEQUENCE DESCRIPTION: SEQ ID NO: 99:

TTGGCCGGTT CTTCT 15

(2) INFORMATION FOR SEQ ID NO: 100:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 100:

ACCGCGGCTG CTGGC 15

(2) INFORMATION FOR SEQ ID NO: 101:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 101:

ACCGCGGCTA CTGGC 15

- (2) INFORMATION FOR SEQ ID NO: 102:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 102:

ACCGCGGCTC CTGGC 15

(2) INFORMATION FOR SEQ ID NO: 103:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 15 basepairs
- (B) TYPE: nucleic acid basepairs
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 103:

ACCGCGGCTT CTGGC 15

(2) INFORMATION FOR SEQ ID NO: 104:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO:104:

CGGCAGCTGG CACGT 15

- (2) INFORMATION FOR SEQ ID NO: 105:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 105:

CGGCCGCTGG CACGT 15

- (2) INFORMATION FOR SEQ ID NO: 106:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

(ii) SEQUENCE DESCRIPTION: SEQ ID NO: 106:

CGGCTGCTGG CACGT 15

(2) INFORMATION FOR SEQ ID NO: 107:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 107:

CGTATTACCG CAGCT 15

(2) INFORMATION FOR SEQ ID NO: 108:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 108:

CGTATTACCG CCGCT 15

- (2) INFORMATION FOR SEQ ID NO: 109:
 - (i) SEOUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 109:

CGTATTACCG CTGCT 15

(2) INFORMATION FOR SEQ ID NO: 110:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 15 basepairs
- (B) TYPE: nucleic acid basepairs
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 110:

TTCCTTTGAG TTTTA 15

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(2) INFORMATION FOR SEQ ID NO: 111

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 111:

TTCCTTTAAG TTTTA 15

- (2) INFORMATION FOR SEQ ID NO: 112:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 112:

TTCCTTTCAG TTTTA 15

- (2) INFORMATION FOR SEQ ID NO: 113:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

(ii) SEQUENCE DESCRIPTION: SEQ ID NO: 113:

TTCCTTTTAG TTTTA 15

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- (2) INFORMATION FOR SEQ ID NO: 114:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 114:

TTCCTTAGAG TTTTA 15

- (2) INFORMATION FOR SEQ ID NO: 115:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 115:

TTCCTTCGAG TTTTA 15

- (2) INFORMATION FOR SEQ ID NO: 116:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 116:

TTCCTTGGAG TTTTA 15

(2) INFORMATION FOR SEQ ID NO: 117:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 15 basepairs
- (B) TYPE: nucleic acid basepairs
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 117:

CATGTGTCCT GTGGT 15

(2) INFORMATION FOR SEQ ID NO: 118:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 15 basepairs
- (B) TYPE: nucleic acid basepairs
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 118:

CGTCAGCCCG AGAAA 15

(2) INFORMATION FOR SEQ ID NO: 119:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 119:

CACTACACAC GCTCG 15

(2) INFORMATION FOR SEQ ID NO: 120:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

(ii) SEQUENCE DESCRIPTION: SEQ ID NO: 120:

TGGCGTTGAG GTTTC 15

- (2) INFORMATION FOR SEQ ID NO: 121:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 121:

GTCCGTGAAC CCGAT 15

- (2) INFORMATION FOR SEQ ID NO: 122:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 122:

TACGCTCTTT GAGCT 15

- (2) INFORMATION FOR SEQ ID NO: 123:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 basepairs
 - (B) TYPE: nucleic acid basepairs
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 123:

AACACTCCCT TTGGA 15